

## **MICROINJECTION OF CRYOPROTECTANTS FOR PRESERVATION OF CELLS**

### **ABSTRACT OF THE DISCLOSURE**

5       A preservation method for biological material having cell membranes includes microinjecting the cells with sugar; preparing the cells for storage; storing the biological material; and recovering the stored biological material from storage. The invention also features a method of culturing a cell *in vitro* using a hypertonic medium. Carbohydrate sugars such as trehalose, sucrose, fructose, dextran, and raffinose, may  
10      be used as bio-protective agents or in the culture medium.